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Frederick Steiner
Chair and Professor

Department of Planning

Arizona State University

College of Architecture and Environmental Planning
Tempe, AZ 85287-2005
602 965-7167
FAX 602 965-9656

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Arizona Watercourse Alteration Certification and Permit Guide

Prepared by:
Frederick Steiner, Virginia Coltman, Edward Cook, and Jacqueline Rich

Department of Planning
Arizona State University
Tempe, Arizona 85287-2005
(602) 965-7167

Prepared for:

Office of Water Quality
Arizona Department of Environmental Quality
2655 East Magnolia
Phoenix, Arizona 85034
(602) 392-4032

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INTRODUCTION

Background

Arizona rivers, streams, washes and wetlands are the focus of numerous laws and regulations -- and for good reason. These areas carry and contain the lifeblood of Arizona--water--in their surface flows or underground. They also support special areas of intense plant growth known as "riparian areas". These lush green areas are necessary as habitat during some part of the life cycle of 75 percent or more of our native wildlife species, and are critical to the survival of 60 percent of the fish and wildlife species facing extinction in Arizona.

Riparian areas are extremely valuable as habitat for waterfowl, wildlife and fisheries. The highest densities of breeding birds are found in riparian habitat, and Arizona's remaining 27 native fishes are completely dependent upon the streams and riparian areas for their survival. Riparian habitat also provides forage, shelter, shade, water, and movement corridors for species such as javalina and other large mammals.

Watercourses have other important natural functions, including flood control and storage, erosion protection by binding and stabilizing soils, providing surface water and groundwater supply, aiding in pollution control through their chemical filtering mechanisms, and are aesthetically valuable as well.

The native people of Arizona considered riparian areas as essential for their lives. The word "Arizona" was derived from two Papago words meaning "place of the small spring." , indicating the significance of water in this arid environment. The importance of watercourses for transportation linkages, as homesites, as a source of water, and for their rich diversity and productivity of plant and animal life is reflected in the settlement patterns from early times to the present. Additional uses of watercourses today include sand and gravel mining operations, locations for golf courses, road crossings, recreational activities and other development activities.

Purpose of the Guidebook

Federal , state, and local governments seek to balance the uses of watercourses with the protection of important natural values. The purpose of this report is to describe the major federal and state programs affecting the use of rivers, streams, and wetlands in Arizona, primarily Sections 401 and 404 of the federal Clean Water Act (CWA).

From this discussion, we hope to clarify the State Water Quality Certification process conducted by Arizona Department of Environmental Quality (ADEQ) and the process for obtaining a federal Section 404 Permit for Discharge of Dredged or Fill Material into waters of the United States from the Army Corps of Engineers (the Corps). This pamphlet is intended to:

- give you an overview of these two programs as they apply in Arizona,
- guide you in completing the permit application and submitting the necessary information for water quality certification, and
- promote your participation in the review and comment on proposed projects in flood plains.

Answers to technical questions and project-specific concerns may be directed to ADEQ, the Corps, and other agencies, some of which are listed on the inside back cover of this pamphlet. Hopefully, this guidebook will assist you in understanding and/or complying with applicable regulations which protect our dwindling wetland and riparian resources.

Overview of the Regulatory Program

The Federal Clean Water Act (CWA) was enacted by Congress to restore and maintain the chemical, physical, and biological integrity of our Nation's waters. It is the principal law authorizing the federal permit program for the discharge of dredged or fill material and the state certification program for water quality. With few exceptions defined in law, every activity in the main channel of a flood plain that involves moving dirt or other materials within or into the channel requires a Section 404 permit. Section 301 of the CWA prohibits the discharge of any pollutant without a permit and Section 402 authorizes the U.S. Environmental Protection Agency (EPA) to issue these permits. For two specific types of pollutants: dredged material and fill material, the Corps is specifically given the authority to issue these permits under Section 404. This permit is called the Section 404 permit. While the Corps has the authority to issue the permits, EPA has an oversight and guidance role in the 404 program.

The CWA also authorizes the states to assume certain responsibilities that can directly affect the issuance of 404 permits. Section 401 of the CWA requires applicants for federal licenses to obtain water quality certification or waivers of certification from the state where the proposed discharge would originate. Therefore, all applicants for 404 permits must also have 401 water quality certification granted or waived by ADEQ for these activities. **Both private and public land are subject to this permit and certification requirement.**

Section 401 of the CWA allows ADEQ to deny certification for activities that do not comply with state water quality standards. **If ADEQ denies 401 water quality certification, then the Corps may not issue a 404 permit. If the Corps does not issue a permit, or ADEQ doesn't issue certification, it is illegal to undertake the proposed activity.** Therefore, it is extremely important for ADEQ and the Corps to be contacted early in the design process, when design modifications to the project can be easily made.

Other federal and state agencies, because of their statutory requirements, review and comment on 404 permits. These include: U.S. Fish and Wildlife Service (USFWS) which coordinates the federal agencies' response to a permit application and is generally concerned about threatened and endangered species and wildlife habitat mitigation; Arizona Game and Fish Department (AGFD), which is concerned about wildlife habitat values and functions; and State Historic Preservation Officer (SHPO),who is concerned about preserving objects and traditions of cultural and historic significance, among other things.

Applicability to Arizona

The state of Arizona, in addition to indirectly protecting riparian areas through the 401 process, also has a gubernatorial mandate to protect riparian areas. On February 14, 1991, Governor Rose Mofford signed Executive Order No. 91-6, "Protection of Riparian Areas." This executive order establishes the riparian policy for Arizona, defining a riparian area as "an aquatic or terrestrial ecosystem that is associated with bodies of water, such as streams, lakes, or wetlands, or is dependent upon the existence of perennial, intermittent, or ephemeral surface or subsurface water drainage." The executive order requires all state agencies to rigorously enforce their existing authorities to assure riparian protection, maintenance, and restoration.

Jurisdictions

The geographic location of a proposed activity is important in determining whether the activity would fall within the jurisdiction of the Corps and the 404 permit program. This jurisdictional determination is based upon the definition and application of ordinary high water (OHW) and wetland delineation and applies also to ADEQ's jurisdiction for 401 water quality certification. For ADEQ water quality standards (WQS) certification and riparian

certification, additional areas are relevant. WQS certification applies to those activities located within the flood plain, and state riparian certification addresses those activities within the riparian area.Figure 1 depicts a desert riparian ecosystem labelled with the appropriate general definitions for permit and certification decisions. These are strictly generalizations and may require pre-application meetings, field investigations, or other means for determining the location of a proposed activity by the Corps and/or ADEQ.

Figure 1

Desert Riparian Ecosystem

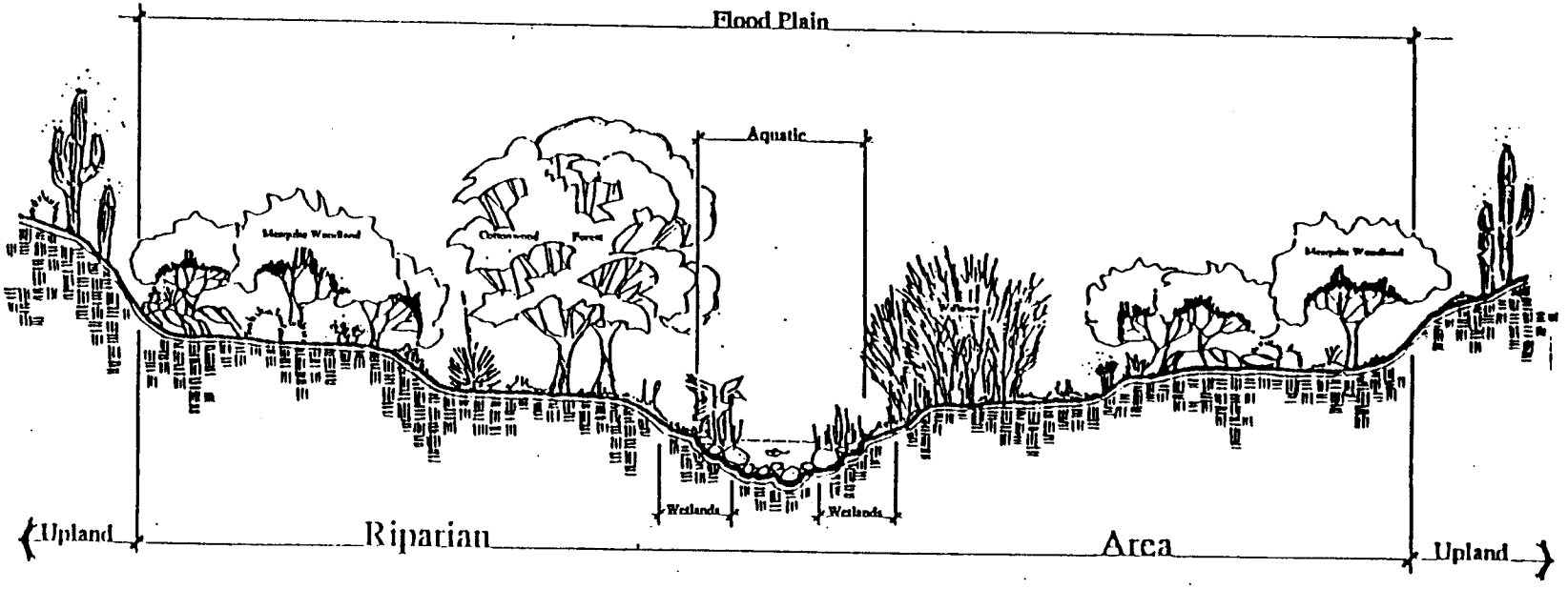


Figure 1. Desert Riparian Ecosystem (Scott Pieart's)

STATE WATER QUALITY CERTIFICATION

Who Must Apply

State water quality certification is divided into different processes that are dependent on whether the project is geographically located:

1) within a channel or a wetland (or the jurisdictional ordinary high water as determined by the Corps for a 404 permit);

2) within the 100-year flood plain (but outside of a channel or wetland); and

3) outside the 100-year flood plain.

These processes and their related geographic areas are simplified in Figure 2. Essentially, if the project will occur within a channel, then the applicant follows Process A (see Figure 3) for 401 Certification. (Additionally, the applicant must obtain a 404 permit by following Process B as further described in Figure 4.) If the activity is located within the 100-year flood plain, then the applicant would also follow Process A, but for Water Quality Standards Certification. And finally, if the project is located outside of the 100-year flood plain, then Process B (see Figure 4), Voluntary Implementation of Best Management Practices (BMPs), is followed.

Section 401 of the CWA requires that **any applicant for a federal permit or license** for an activity **that may discharge to waters** must obtain a certification that the discharge will comply with water quality requirements and effluent standards. Federal permits and licenses requiring 401 certification include:

- Permits for point source discharges under Section 402 of the CWA;
- Discharge of dredged and fill material under Section 404;
- Permits for activities in navigable waters which may affect navigation under Sections 9 and 10 of the Rivers and Harbors Act;
- Licenses required for hydroelectric projects issued under the Federal Power Act; and
- Possibly other federal permits and licenses, such as permits for activities on public lands and Nuclear Regulatory Commission Licenses, which may result in a discharge and therefore require 401 certification.

Any applicant for a federal permit for activities that could result in the discharge of a pollutant in violation of state water quality standards is required to obtain certification from the state in which the activity is to occur. In essence the state is to certify that the materials to be discharged into a wetland or riparian area will comply with the applicable effluent limitations, water quality standards and any other applicable conditions of state law. A certification obtained for construction of any facility must also pertain to the subsequent operation of the facility. If the state denies certification, the federal permitting agency must deny the permit application. If the state imposes conditions on a certification, the conditions become part of the federal 404 permit

NEED DESCRIPTION OF THE WQS CERTIFICATION, STATE RIPARIAN CERTIFICATION PROGRAMS AND BMP PROGRAMS

BMPs are management practices that are recommended to prevent or minimize environmental damage such as erosion, pollution, fish and wildlife habitat destruction, or soil productivity losses

Figure 2.
Decision Diagram

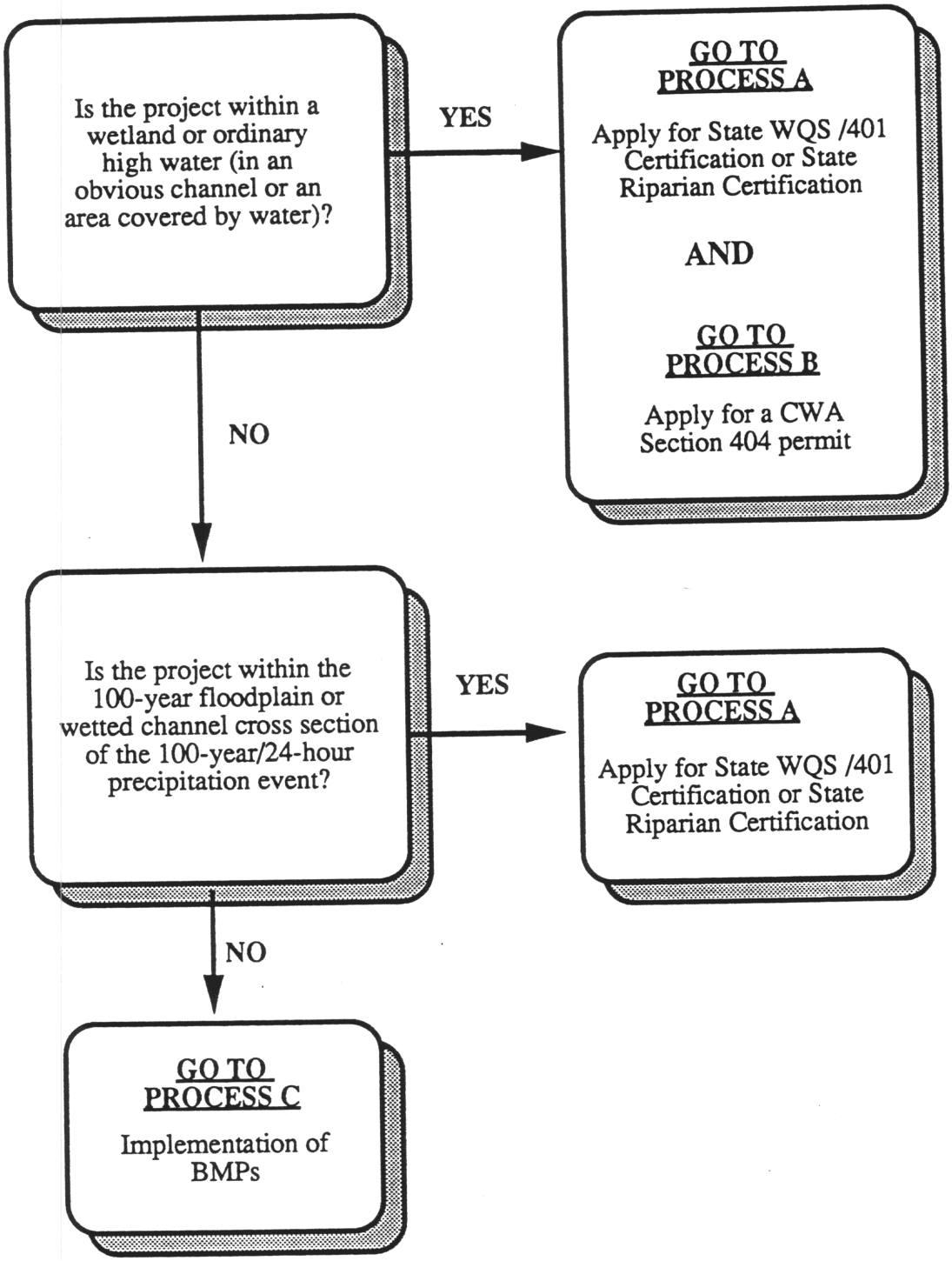


Figure 2. Decision Diagram

Water Quality Certification Process

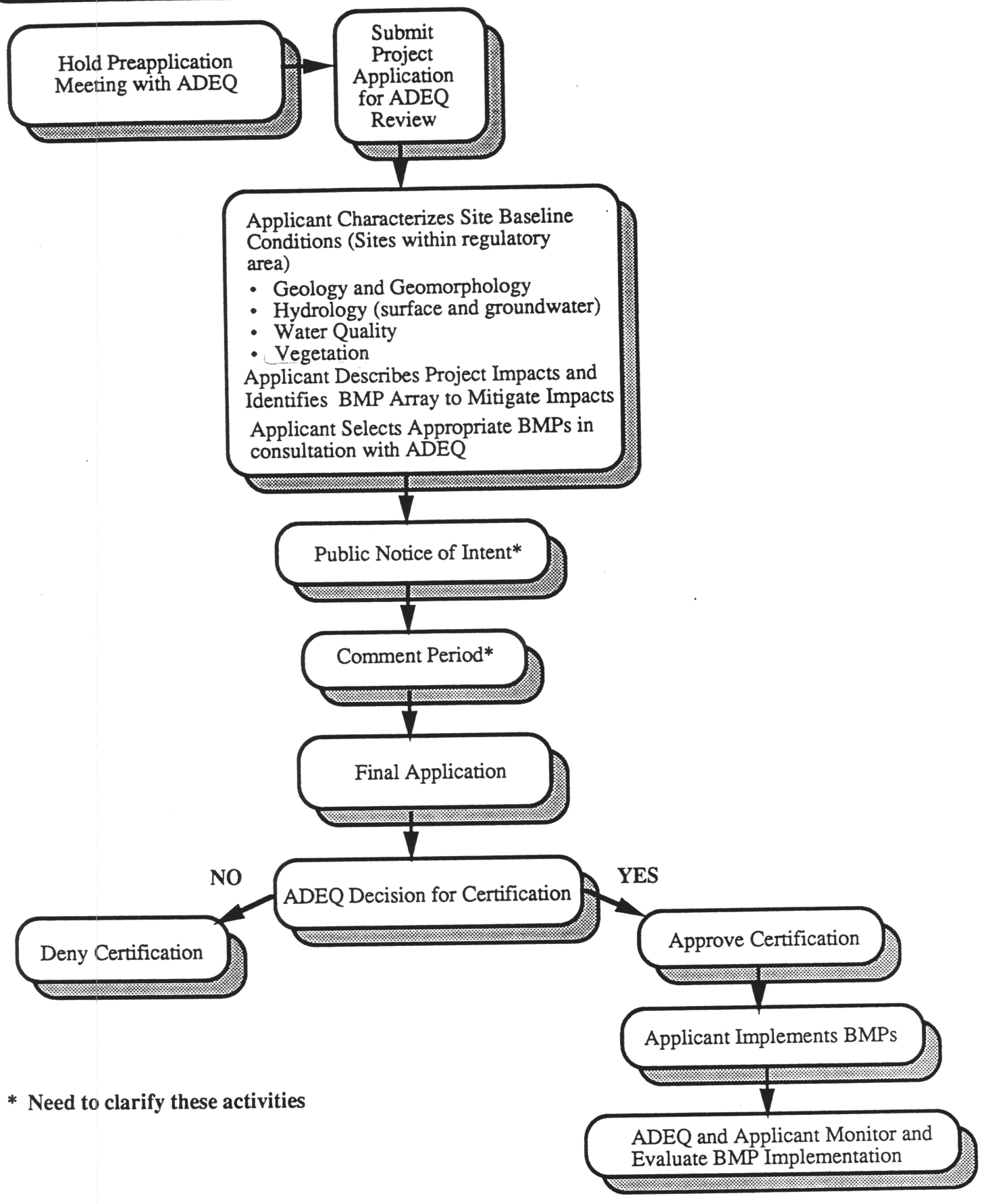
Dependent on the location of the proposed activity, one of three different processes may apply. The determination of which process applies to your project may be made with the help of the decision diagram in Figure 2. Process A is followed for areas under the Corps' jurisdiction for the 404 permit and where 401 certification may be required (see Figure 3). When the project is within the flood plain but outside the channel, then Process B for WQS Certification and State Riparian Certification is followed. And finally, Process C, Voluntary Implementation of BMPs is chosen when the activity is outside the flood plain.

Congress has given the state the authority to place any conditions on a water quality certification that are necessary to assure that the applicant will comply with: effluent limitations, water quality standards, standards of performance or pretreatment standards, any state law provisions or regulations more stringent than those sections, and "any other appropriate requirement of state law." Legislative history indicates that the Congress meant for the states to impose whatever conditions on the certification that are necessary to ensure that an applicant complies with all state requirements that are related to water quality concerns. Also, because the state's certification of a construction permit or license also operates as certification for an operating permit, it is imperative for a state review to consider all potential water quality impacts of the project, both direct and indirect, over the life of the project .

In Arizona, ADEQ implements these Section 401 requirements. ADEQ has the final word on approval, denial, or special conditions for certification. If a Section 404 permit is needed, Section 401 certification may also be necessary. If Section 401 certification is deemed necessary by ADEQ and certification is denied, it will not be possible for the applicant to receive a 404 permit.

Typically, the 401 water quality certification process (Figure 3) begins with the receipt of a Section 404 public notice which includes a notice of request for 401 certification from the Corps by ADEQ's Water Quality Division.

Figure 3.
Process A: Apply for State WQS / 401 Certification or State Riparian Certification



* Need to clarify these activities

Figure 3. Process A: Apply for State WQS Certification/401 Certification/State Riparian Certification

Section 401 provides that the state certification requirement is waived if the state fails to act within a reasonable time (which shall not exceed one year) of receipt of the request for certification. The Corps regulations define that reasonable time to be 60 days, but allow time to be extended up to one year. Neither the Corps nor federal courts can review the state's certification decision; judicial review is in the state courts. If the state denies certification, then the federal permitting or licensing agency is prohibited from issuing a permit or license.

Pre-application Meeting. For WQS certification, 401 certification, and riparian certification, the applicants hold a preapplication meeting with ADEQ. In cases where ADEQ is involved in the 404 permit pre-application meeting with the Corps and the applicant, ADEQ sends a follow-up letter to the applicant. In this letter ADEQ informs the applicant about the 401 certification requirement and additional information about the requirements of the program. The applicant is asked to contact ADEQ to set up a pre-application meeting to discuss water quality protection needs for the proposed project.

At the ADEQ/applicant's pre-application meeting, or in follow-up to a pre-application discussion with the applicant if there is no meeting, ADEQ provides a checklist of information required for the 401 certification and a form that asks the applicant to describe the procedures, practices, and/or facilities that will minimize potential pollution of surface waters and demonstrate compliance with water quality standards for each of the 14 individual policies included in the Arizona Water Quality Control Council's (WQCC) Policy for Construction and Related Activities in Water (see Figure 6), and the policy to protect water from pollution with fuels, oil, bitumens, calcium chloride, and other harmful materials.

Application Process. If ADEQ does not participate in a pre-application meeting with the Corps, ADEQ may be contacted by the applicant in response to the Corps' notification of the applicant of the 401 certification requirement. In other cases, the first time that ADEQ learns of a project is when a public notice for a 404 permit is issued by the Corps and sent to ADEQ. When either of these situations occur, ADEQ sends the applicant a cover letter and the information checklist for 401 certification and request for response to the WQCC's Policy for Construction and Related Activities in Water.

The information checklist for 401 certification consists of:

- description of the project;
- latitude/longitude and legal description at the center of the project area;
- U.S. Geologic Survey topographic and contour maps of the proposed project area;
- aerial photos and snapshots of proposed project area (if available);
- detailed design plans with contour lines if available. These should be the most recent revision and delineate specified flood recurrence intervals and locations of major features (including haul roads, equipment storage areas mitigation areas, and the like);
- reports such as geohydrologic/soils, environmental impact/assessment;
- elevations above mean sea level (MSL) of channel and water table at project site(s);
- description of the fill material (gradation, mineral content, potential pollutants) and its source (location of pit, quarry);
- flood plain analyses and delineations for specified recurrence intervals;

- Water Quality Control Council Policies and Mitigations used to prevent water pollution;
- other measures/practices that will be implemented to achieve state water quality standards;
- future impacts on surface water quality, channel elevations, water table elevations, upstream conditions, downstream conditions, and/or other;
- site reclamation/closure plans; and
- other specified pertinent information.

ADEQ uses the checklist to identify for the applicant the information that the agency staff believe to be applicable for each individual proposed action requiring certification. If ADEQ is unable to complete its certification review and determination in time to provide certification to the Corps as their response to the public notice, the applicant and the Corps are notified by letter. This letter serves notice that no Section 404 permit should be issued until an ADEQ state water quality certification is issued. The letter warns the applicant that if ADEQ does not hear from the applicant within 60 days, they will recommend denial of the permit.

Certification Review. ADEQ staff in the Phoenix and Tucson offices conduct the certification review for the 404 permits. Projects in Pima, Santa Cruz, Cochise, Yuma, La Paz, and Mohave counties are reviewed by personnel in Tucson and the rest of the state is reviewed by Phoenix staff. ADEQ evaluates cumulative hydrologic impacts of the proposed and existing discharges for surface water of the state, using geographic information system (GIS) data and surface water quality monitoring data.

Factors considered in issuing the state water quality certification include:

- Will the project cause or contribute to the degradation of the quality of waters of the state or violation of state water quality standards?
- Are there practicable alternatives which have less impact on water quality and the ecosystem?
- Have steps been taken to avoid, minimize, and rehabilitate potential adverse impacts on water quality and the aquatic ecosystem?
- Is the information sufficient to determine compliance?

Certification Decision. ADEQ often requires conditions to be met before water quality certification is granted to the applicant.

Fees.
Appeals.
Enforcement.
Violations/Penalties.

Figure 6. WQCC Policy on Construction and Related Activities in Water.

TIPS FOR A SUCCESSFUL STATE WATER QUALITY CERTIFICATION APPLICATION

Involve ADEQ Early

Before beginning the water quality certification application process, you should be clear about one thing: certification is not guaranteed. It is ADEQ's responsibility to protect water quality. ADEQ is concerned about water quality standards, including turbidity. If your project has a negative effect on water quality, it may be denied or conditioned. The best way to avoid unnecessary planning, design, or legal costs is to involve ADEQ early. ADEQ staff can determine in the early stages of your project how it might impact water quality and what you can do to ensure compliance with state and federal laws. One way to ensure compliance is to avoid activities in flood plains, wetlands, and riparian areas.

To assist you with the water quality/401 certification process, the WQCC Policy on Construction and Related Activities in Water that ADEQ uses in its assessment of potential pollution of surface waters is included in Figure 7.

Ed--would a bulleted section be more direct and helpful to applicant??
Such as:

- *Contact ADEQ before you develop plans or designs for your project and ideally before you purchase any land.*
- *Avoid activities in flood plains, wetlands, and riparian areas.*

SECTION 404 PERMIT FOR DISCHARGE OF DREDGED OR FILL MATERIALS

Who Must Apply

The purpose of Section 404 is to regulate dredging, filling or alteration of waters of the United States, including adjacent wetlands (see definitions for waters of the United States below and wetlands on page ---). A 404 permit is required if:

1. the proposed dredge, fill or alteration activities are regulated by the law, and

2. the activities would take place in the geographic area regulated by the law.

Both of these conditions must be present before a Section 404 permit is required. The Corps can clarify whether a proposed activity meets these conditions.

Regulated Activities

Typical examples of projects requiring 404 permits include:

- gravel removal,
- dredging,
- mining,
- riprap placement,
- bank protection devices,
- impoundment,
- dams,
- dikes,
- land reclamation,
- channel alteration or relocation,
- utility line or road crossings,
- and construction of bulkheads.

To insure that the nation's water resources and wetlands are used in the best interest of the public, the Section 404 permit process provides for government and public review and comment. Any individuals or groups (including all levels of government) proposing this type of activity must obtain a Section 404 permit (note exemptions below) from the regulatory branch of the Corps.

Exemptions

Some activities are exempt from the Section 404 regulatory provisions but may be subject to other federal and/or state regulation. EPA is responsible for interpreting these exemptions. Among these activities which are described in Section 404(f) of the CWA are:

- normal agriculture, forestry, or ranching;
- maintenance or reconstruction of certain serviceable structures, including dikes, dams, breakwaters, causeways, or bridge abutments;
- construction or maintenance of farm or stock ponds, or irrigation ditches, or the maintenance of drainage ditches;
- construction or maintenance of farm or forest roads, or temporary roads for moving mining equipment; and
- congressionally approved projects for which an environmental impact statement has been filed.

Regulated Geographic Areas

Permits are required of projects on both private and public land that fall within the jurisdictional area of the Corps. (Additional areas are relevant for water quality standards certification. See the description of Section 401 requirements on page ----). The geographic location of a proposed activity is important in determining whether the activity would fall within the jurisdiction of the Corps and the 404 permit program. This jurisdictional determination is based upon the definition and application of ordinary high

water (OHW) (see definition on page --) and wetland delineation and applies also to ADEQ's jurisdiction for 401 water quality certification.

For ADEQ water quality standards (WQS) certification and riparian certification, additional areas are relevant. WQS certification applies to those activities located within the flood plain, and state riparian certification addresses those activities within the riparian area. Figure 1 depicts a desert riparian ecosystem labelled with the appropriate general definitions for permit and certification decisions. These are strictly generalizations and may require pre-application meetings, field investigations, or other means for determining the location of a proposed activity by the Corps and/or ADEQ. Penalties or other types of enforcement may be instituted against those who violate 404 provisions. Issuance of permits is dependent upon compliance with EPA guidelines in Section 404 (b) (1).

Waters of the United States include:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands;

3. All other waters such as intrastate lakes, rivers streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

   a. which are or could be used by interstate or foreign travelers for recreational or other purposes; or

   b. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

   c. which are used or could be used for industrial purpose by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States under the definition;

5. Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;

6. The territorial seas;

7. Wetlands adjacent to waters (other that waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section. [33 CFR 328.3(a)(1-7)]

Individual and General Permits

Actions in wetlands may be subject to individual or general permit regulations. Individual permits are issued for single activity, while a general permit may apply to a geographic region or the nation or to particular types of actions that have minimal adverse impacts on the environment. Overall the Corps has defined 26 categories of these general permits. Nationwide general permits are described in more detail on page---. Even if a general permit is present for a proposed activity, when a project is within a particularly important ecological area, the Corps Division Engineer or Chief of Engineers has discretionary authority to require that an individual permit be obtained. Most wetland modification proposals will require issuance of an individual Section 404 permit. Applicability of general permit and exemption criteria is best determined through consultation with the Corps.

THE 404 PROCESS

Permit Application Process

Obtaining federal, state and local permits for wetland and watercourse alteration can be costly in terms of financial resources, time and environmental impact. Avoiding these areas is usually easier and less expensive. Review of applications for controversial projects may take several years and may be denied or require significant modification. Often extensive analysis is required to be provided by the applicant to prove that the application meets conditions for approval.

A number of alternatives exist to wetland alteration and should be considered prior to initiating the permit application process. These alternatives can both protect existing wetlands and provide the individual property owner with other benefits. Numerous organizations (private and public) have established programs for transferring development rights, purchasing or accepting donations of land, selling or donating conservation easements and other mechanisms for protecting wetlands. ADEQ staff and other local professionals would be willing to discuss these options. In addition, Section 404 requires that prior to selecting a project for submittal for a 404 permit alternatives that would preclude the necessity for a 404 permit must be thoroughly considered and evaluated. This alternatives analysis (under Section 404(b)(1)) is critical to permit approval for a project.

Figure 4 illustrates the typical process for applying for a Section 404 permit. Each of the steps is described in this section. As the diagram illustrates the 404 process is complex and may include many exceptions. Each project undoubtedly includes minor variations and possibly major differences. However, an applicant should begin by following the process as described and be prepared to adapt to exceptions.

insert page break Figure 4.

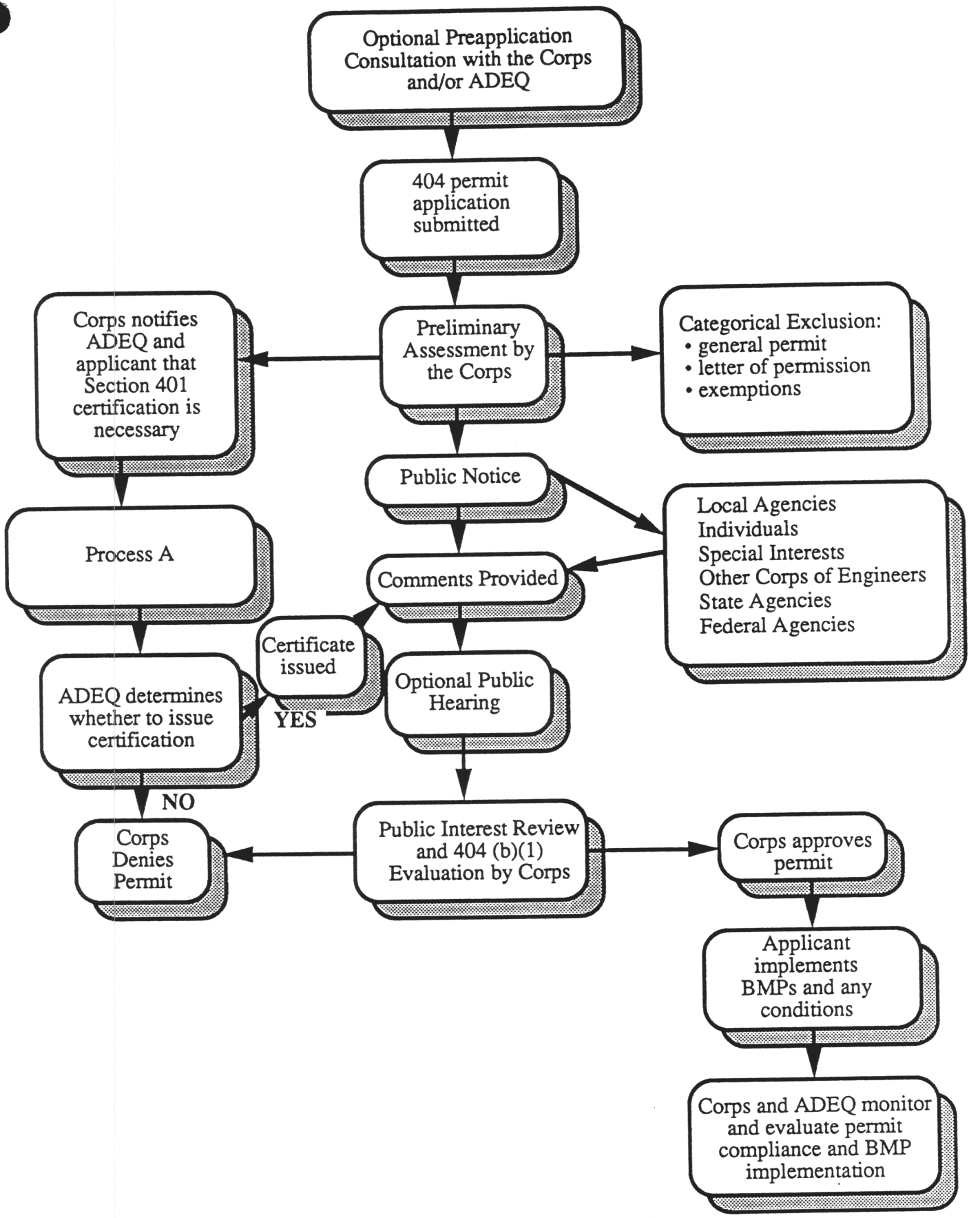
General Evaluation Criteria

The Corps has the responsibility to determine that a project is not contrary to the public interest before it may issue a Section 404 permit. Consequently, all factors that may be relevant to the proposal must be considered. The Corps and EPA jointly administer Section 404 requirements. The Corps reviews permit applications and has formal responsibility for issuing or denying permits. The EPA is responsible for assessing environmental impacts and has veto power over a permit that would have unacceptable environmental impacts. The U.S. Fish and Wildlife Service (USFWS) also has an important role in the 404 process, reviewing and commenting on permit applications and providing technical assistance to protect fish and wildlife resources and mitigate impacts. Section 401 provides for state water quality standards certification of any permit application. ADEQ may place conditions on or request denial of a proposed project that does not meet state water quality standards.

Section 404 permit applications are evaluated based on guidelines developed by the EPA (Section 404(b)(1) guidelines) to assess the impact of a project on environmental quality and factors to determine if the project is in the public interest. Factors that are considered include conservation, economics, aesthetics, general environmental concerns, wetlands, fish and wildlife values, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production, and in general the needs and welfare of the people. Non-compliance will generally result in denial of the permit application, recommendation for modification to minimize impacts, or compensation or mitigation to create or restore other wetlands to replace unavoidable project impacts. EPA guidelines also state that no permits should be given if the actions will:

- cause violations of state water quality standards,
- violate toxic effluent standards,
- jeopardize federally listed endangered or threatened species,

Figure 4.
Process B: Apply for CWA Section 404 Permit



- adversely affect municipal water supplies, plankton, fish, shellfish, wildlife and special aquatic sites (i.e. wetlands),
- adversely affect the capacity of a wetland to assimilate nutrients, and
- significantly reduce recreational, aesthetic and economic values.

Water Dependency Test
Alternatives to the proposed action are required to be investigated by the applicant. If access to water is not required by the project, then it is presumed that alternatives exist. If the water dependency test shows that the proposed action requires water access, impacts are to be minimized (40 CFR 230.10(a)(3)). The EPA and USFWS have mitigation guidelines for situations where no practicable alternatives exist. It is also important to note that the benefits of the proposed alteration are to outweigh the damage to the wetlands resource (33 CFR 320.4(b)(4)).

Preapplication Meeting
Prior to formal application the applicant is advised to meet informally with the Corps and ADEQ to discuss general concepts, potential permit requirements and estimated time frames for completing the permit process. This meeting should occur before a final project design is completed or property is purchased for the purpose of the proposed activity. More technically-oriented pre-application meetings may also be held, prior to submittal, to present the proposed project to obtain preliminary technical input. This may save considerable time and expense because agency concerns can be incorporated into the design early in the process.

Application Submittal
The formal process begins when the applicant submits ENG Form 4345 to the Corps district regulatory office. A preliminary assessment is conducted by the Corps to ensure accuracy and completeness of the submittal and to determine that an individual permit is required. The Corps also notifies ADEQ and the applicant that Section 401 water quality standards certification is necessary.

Public Review
When the submittal is determined to be complete, public notice is given by the Corps to solicit public and agency comment for 30 days. Notice is sent to newspapers, local agencies, individuals, special interest groups, other Corps offices, state and federal agencies. Any individual or group may request to be notified for specific regions or projects by writing or telephoning the Corps offices..The Corps is also required by law to contact adjacent land owners to inform them of the proposed activity and provide an opportunity for input. Public agencies usually involved in the process in Arizona include:

- U.S. Environmental Protection Agency,
- U.S. Fish and Wildlife Service,
- Arizona Department of Environmental Quality,
- Arizona Game and Fish,
- Arizona State Parks Board, and
- local jurisdictions.

ADEQ coordinates state agency review and comment and certifies that state water quality standards are observed. If the state water quality standards are not met ADEQ will request that the Corps deny the permit. A public hearing is not required, however, if one is requested or it appears that additional important information may result the Corps may hold one.

Permit Decision
A public interest review and 404(b)(1) evaluation is conducted by the Corps. If the Corps determines that the project may cause significant damage to the human environment, a federal environmental impact statement is required. If the result of the public interest review and 404(b)(1) evaluation is a Finding of No Significant Impact, the environmental documentation is concluded. The final decision to issue or deny the permit is made by weighing the project benefits against the environmental impacts. All of the information obtained through the review process is considered at this point in the process. The applicant may be required to provide additional information, at this point, to assist the Corps in making a more informed decision. The final decision may be for approval, approval with conditions, denial or modification. If the application is denied, the Corps will provide reasons for the denial. A request for modification will continue the process, if the applicant wishes to proceed and comply with the request. There is no provision for appeal of the final decision, outside the applicant's right to file a law suit.

Mitigation
When unavoidable damage occurs to areas regulated under the Section 404 program the law provides for opportunities for mitigation. Mitigation is the replacement or enhancement of wetlands to compensate for unavoidable damage. The extent and type of mitigation required is determined on a case by case basis.

Timing
From the time the completed application is formally submitted, the review process normally takes approximately ------ days. The complexity of the project, number of agencies involved, and the ability of the applicant to respond with additional information can affect the time for completion. Controversial projects and those for which a federal environmental impact statement is required take substantially longer, possibly one to two years. The EPA and the USFWS have the option to elevate a permit decision to the national level, to obtain a decision, if they feel it is warranted. This may delay a decision for one to two months.

SUGGESTIONS FOR A "SUCCESSFUL" 404 PERMIT APPLICATION

Pre-submittal Communication

Because of the complexity of wetlands issues and laws, each submittal is reviewed on its own merits. Consequently, involvement with the Corps and other agencies prior to submittal will provide greater ability to incorporate concerns into plans before the formal review process begins. Involvement of all critical agencies early in the process will also save significant expenses in planning, design and legal costs.

Complete and Accurate Submittal

Even though the Corps may request additional information, after the initial application is submitted, ensuring that your application is complete and accurate will help to expedite the review process. Obtain clarification of any items that are unclear prior to submission. The application form and supporting drawings are required to complete the application package. The following checklist will provide and overview of what constitutes and complete application package, however, the regulatory division of the Corps office should be contacted for more specific information.

1. Fully completed ENG Form 4345.

2..One original or good quality copy of all drawings on 8 1/2 x 11 inch white paper. Three types of drawings are required, vicinity, plan and elevation that include:

Vicinity Map
- location and activity site.
- latitude, longitude, river mile, and/or other information.
- name of waterbody and the name of the larger creek, river, bay, etc. that the waterbody is immediately tributary to.
- names, descriptions and location of landmarks.
- name of all applicable political jurisdictions.
- name of and distance to nearest town, community or other identifying locations.
- names or numbers of all roads in the vicinity of the site.
- north arrow and scale.

Plan View
- name of waterbody and river mile at location of activity.
- existing shorelines.
- mean high and mean low water lines.
- ordinary high water line and ordinary low water line.
- average water depths around the activity.
- dimensions of the activity and distance it extends from the high water line into the water.
- distances to nearby federal projects, if applicable.
- distance between proposed activity and navigation channel, where applicable.
- location of structures, if any, in navigable waters immediately adjacent to the proposed activity.
- location of any wetlands.
- north arrow and scale.
- if dredged material is involved, you must describe the type of material, number of cubic yards, method of handling, and location of fill and spoil disposal area. The drawing should show proposed retention levees, weirs, and/or other means fro retaining hydraulically placed materials.
- mark the drawing to indicate previously completed portions of activity.

Elevation and/or Cross Section View
- water elevations as shown in the plan view.

- water depth at waterward face of proposed activity or, if dredging is proposed, dredging and estimated disposal grades.
- cross section of excavation or fill, including approximate side slopes.
- graphic or numerical scale.
- principal dimensions of the activity.

Notes on Drawings
- names of adjacent property owners who may be affected.
- legal property description: number, name of subdivision, block and lot number. Section, township and range from plot, deed or tax assessment.
- photographs of the site of the proposed activity are not required; however, pictures are helpful and may be submitted as part of any application.

NATIONWIDE GENERAL PERMITS

Nationwide general permits are issued by the Corps on a national or regional basis for a category or categories of activities when:

- those activities are substantially similar in nature and cause only minimal individual and cumulative environmental impacts; or

- the general permit would result in avoiding unnecessary duplication of the regulatory control exercised by another federal, state, or local agency, providing it has been determined that the environmental consequences of the action are individually and cumulatively minimal (33 CFR 322.2(f)).

The Corps has defined 26 of these general permits, listed in Table 1, that are applicable on a nationwide basis in their regulations (33 CFR §330.5). Recently, the Corps has proposed to increase the number of nationwide permits to 40. It is not necessary for the landowner to inform the Corps of the activity under a nationwide permit except for 7, 17, 21, and 26. Rather, as long as the landowner meets the conditions and management practices applicable, he or she can proceed with the activity. Under a Memorandum of Agreement (MOA) between the Corps and EPA on enforcement procedures regarding applicability of previously issued Corps permits, it is generally the Corps that determines applicability of nationwide permits (Want 1990).

In Arizona, the nationwide permit that is most often used is nationwide permit 26, which applies to all activities under one acre that lie above the "headwaters" and meet thirteen other special conditions, and, at the Corps' discretion, may apply to activities between one and ten acres above headwaters that also meet these special conditions. The location of the headwaters demarcation on a watercourse is important in determining whether it might qualify for nationwide 26 (33 CFR Part 330).

Headwaters in Arizona were initially established by a public notice issued August 15, 1978. Additional public notices were issued throughout the next twelve years. Original headwaters determinations had many Arizona streams being above headwaters. Currently, headwaters in Arizona are being revised and many more rivers are now considered below headwaters demarcations.

The determination of headwaters is made by each Corps district engineer (DE). According to regulations (33 CFR §330.2(b)), "headwaters" is defined as the point on a non-tidal stream above which the average annual flow is less than five cubic feet per second, or for streams that are dry for long periods of the year, the headwaters may be established as that point on the stream where a flow of five cubic feet per second is equalled or exceeded 50 percent of the time. Headwaters determinations were recently revised in Arizona by the Los Angeles District Corps Commander.

Division engineers, on their own initiative or upon recommendation of a DE are authorized to modify nationwide permits by adding regional conditions or to override nationwide permits by requiring individual permit applications on a case-by-case basis for a category of activities or in specific geographic areas. This discretionary authority should be based on concerns for the aquatic environment as expressed in the guidelines published by EPA pursuant to section 404(b)(1)(see 33 CFR §330.8).

The Corps can also issue regional general permits for specific activities in specific geographic locations (33 CFR §325). To date, none have been issued for activities in Arizona.

RELATED FEDERAL, STATE, AND LOCAL LAWS AND POLICIES

Federal

Although the CWA is the major federal law regulating the use of watercourses, wetlands, and riparian areas, there are several others that might affect Arizona landowners and local governments. These include the Rivers and Harbors Act of 1899, the National Flood Insurance Act of 1968 and the related Flood Disaster Protection Act of 1973, the Wild and Scenic Rivers Act of 1968, the Endangered Species Act of 1973 and the related Fish and Wildlife Act of 1974, the surface Mining and Reclamation Act of 1977, and the food Security Act of 1985 (FSA).

General Permit

The Rivers and Harbors Act is the oldest federal law affecting wetlands protection. Under the 1899 act, the Corps "is responsible only for navigable waters...reaching laterally to the mean high water mark in tidal areas...and the ordinary high water mark in freshwater areas" (Rapoport 1986, p. 113). Section 10 of the act is the original source for the permit-granting authority of the Corps. In the 1960s, the Corps started to use this authority to protect wetlands (Want 1990). As a result of this permit-granting experience, the corps has derived its subsequent regulatory authority for Section 404 permits plus nationwide general permits.

Flood Insurance

The 1968 flood insurance law established a federally subsidized flood insurance program that is available to residents of communities which participate in the program (42 USC 4001-4128). The program is administered by the U.S. Department of Housing and Urban Development.The 1973 act prohibits federal assistance for land acquisition and construction in flood hazard areas unless a community participates in the flood insurance program. In addition, federally insured loans are prohibited to communities not participating in the program. To participate, communities must adopt land-use regulations for flood plains consistent with federal criteria (Moss 1977).

Wild and Scenic Rivers

The Wild and Scenic Rivers Act states "certain rivers which, with their immediate environments, possess outstanding remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations" (16 USC 1271). The act established the Wild and Scenic Rivers System and affords different levels of protection in the system (Moss 1977). Section 11 of the act enables the U.S. National Park Service to provide river conservation planning to the growing national interest in the development of greenways adjacent to rivers and streams (Little 1990).

Endangered Species

The Endangered Species Act addresses wetlands through the protection of critical habitat (16 USC 1531 et seq.). Beginning in 1973 and with strengthening amendments in 1978 and 1982, the endangered species legislation requires protection of critical habitats for rare, threatened, or endangered species. Fish and wildlife legislation began in the early 1930s but was especially strengthened in 1974 and 1980. The purpose of this program is to manage federal, state, and local plans for hunting, fishing, and habitat conservation. The 1980 amendments introduced protection for non-game species. The principal agency responsible for the protection of endangered species and for fish and wildlife programs is the U.S. Fish and Wildlife Service (Westman 1985).

The goal of the Endangered Species Act is to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth..." The act may address wetlands in a very slight fashion

through the protection of critical habitat. However, the listing of critical habitat under this act has been quite limited on a nationwide basis. The act does not have a category for rare species. It mandates federal agencies to use their authorities, i.e. project or permit review, to "seek to conserve endangered species."

Surface Mining
Surface mining operations can result in disturbances to the environment that can adversely affect commerce and the public welfare by contributing to floods, polluting the water, and destroying fish and wildlife habitats. The Surface Mining and Reclamation Act attempts to ameliorate these negative impacts. The act encourages state efforts and the reclamation of rural lands. Section 406 provides for the control and prevention of erosion and sediment damages from mined areas and promotes water resource conservation. The U.S. Department of Agriculture (USDA) can enter into agreements with landowners and owners of water rights to encourage conservation.

Farmlands
The swampbuster provisions were adopted by Congress as part of the conservation Title of FSA of 1985. These provisions withhold federal agricultural benefits from landowners who convert wetlands without an approved conservation plan. The federal programs affected include price and income support payments, storage facility loans, crop insurance, disaster payments, and Farmers home Administration loans. Since most farmers make use of some of these benefits, the swampbuster provisions are potentially quite significant. The responsibility for the preparation and adoption of conservation plans is jointly shared by the landowner, the local conservation district, and the Soil Conservation Service (SCS). This provision was strengthened in the Food, Agriculture, Conservation, and Trade Act (FACTA) of 1990. The Wetlands Reserve Program established under Section 1438 of FACTA provides incentives to protect and restore up to one million acres of wetlands in return for long-term conservation easements (Cohen et al. 1991).

Arizona
Su, Don, Chris, and Ed: What laws should be included?
Local
General and Specific Plans

Environmentally Sensitive Land Ordinances

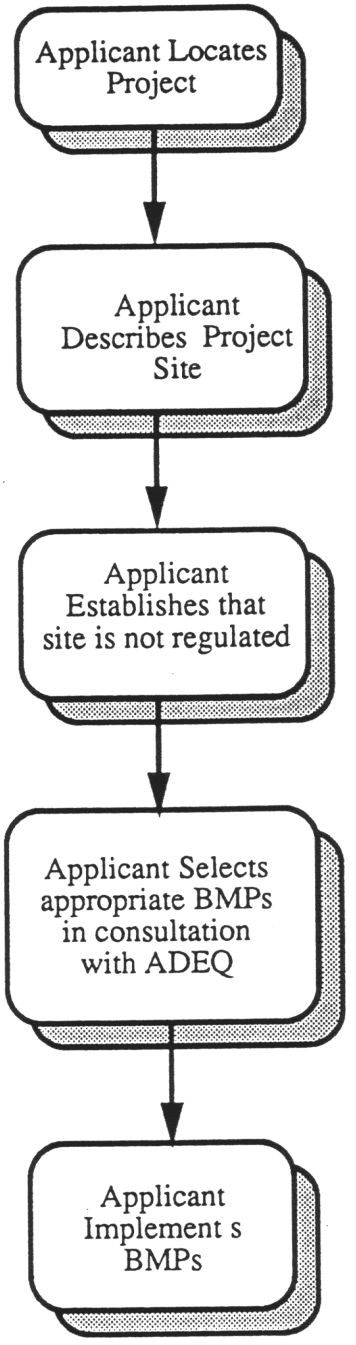
Zoning Ordinances

Subdivision Regulations

BEST MANAGEMENT PRACTICES

BMPs may be required as a result of either Process A or Process B. If your project is outside of the 100-year flood plain or the wetted channel cross section of the 100 year/24 hour ppt. event, then you may voluntarily implement BMPs. The voluntary use of BMPs is summarized in Process C (Figure 6). A list of recommended BMPs in Arizona is found in Table 2.

Figure 5.
Process C: Voluntary Implementation of BMPs



5 (of)

Figure 5C
Process 3: Voluntary Implementation of BMPs

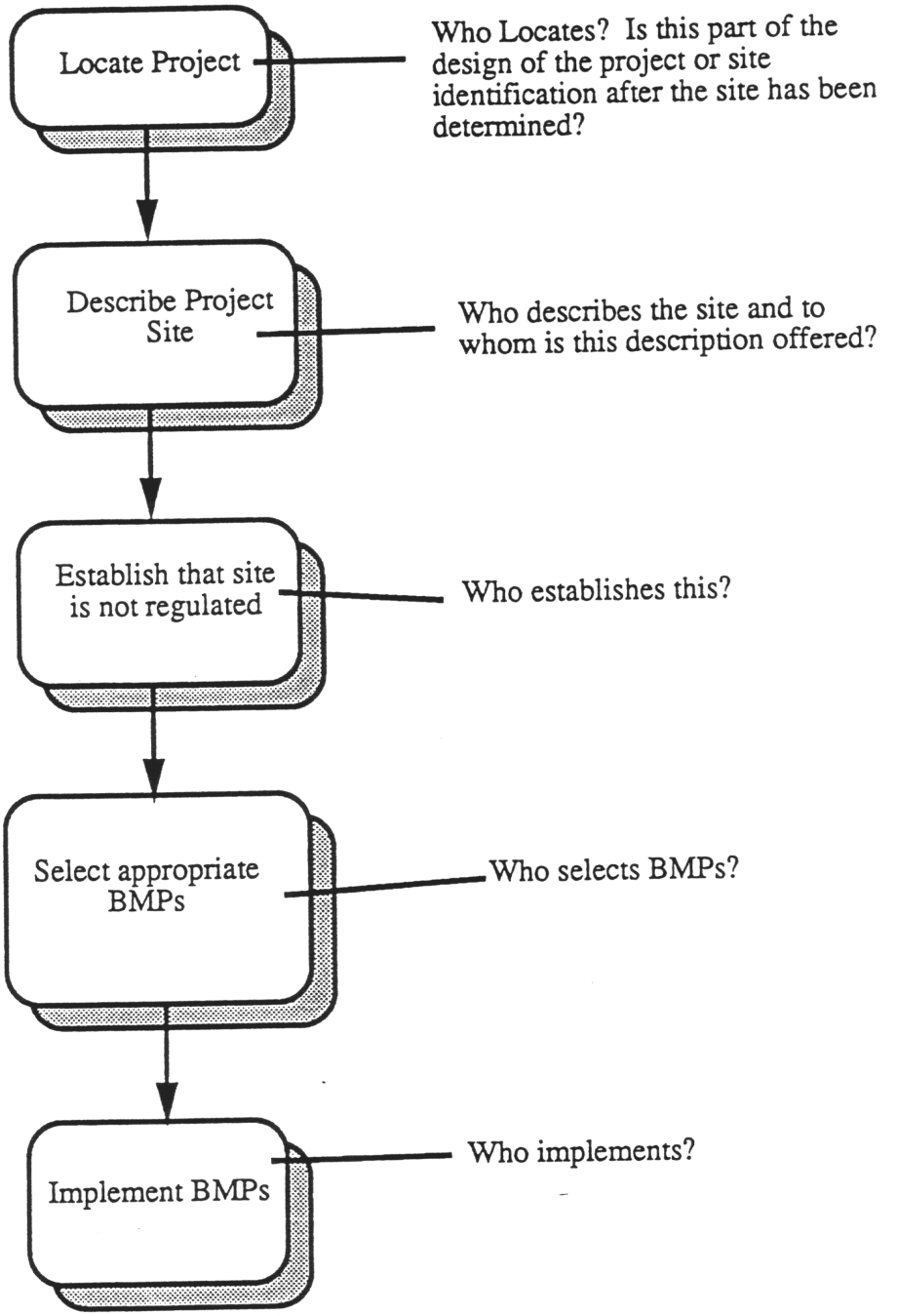


Figure 5. Process C: Voluntary Implementation of BMPs.

TABLE 1.

NATIONWIDE PERMITS*

1. Aids to Navigation
2. Structures in Artificial Canals
3. Repair and Replacement Activities
4. Fish and Wildlife Harvesting Devices
5. Scientific Testing Devices
6. Survey Activities
7. Outfall Structures with National Pollutant Discharge Elimination System (CWA Section 402) Permits and Approved Intakes
8. Oil and Gas Exploration Structures
9. Structures in U.S. Coast Guard Approved Anchorages
10. Individual Mooring Buoys
11. Temporary Buoys
12. Utility Line Crossing
13. Bank Stabilization Activities
14. Minor Road Crossing
15. Fill Associated with U.S. Coast Guard Approved Bridges
16. Return Water from Hydraulic Dredging
17. Fills for Small Hydro Power Projects
18. Discharges less than 10 cubic yards
19. Dredging less than 10 cubic yards
20. Discharges to Clean up Oil Spills
21. Surface Mining Control and Reclamation Act Approved Actions
22. Removal of Obstructions to Navigation
23. Council of Environmental Quality Adopted Categorical Exclusions for Federal Agency Activities
24. CWA Section 404(g) Programs
25. Discharges of Concrete in Sealed Coils
26. Discharges into Headwaters, Isolated or Intermittent Waters

* 33 CFR Part 330, November 1986

Table 1. Nationwide Permits

Table 2. Best Management Practices in Arizona.

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GLOSSARY

100-Year Flood Plain. The lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a 1% or greater chance of flooding in any given year.

100-year flood plain -

ADEQ - Arizona Department of Environmental Quality

Best management practices (BMPs) - Management practices that are recommended to prevent or minimize environmental damage such as erosion, pollution, fish and wildlife habitat destruction, or soil productivity losses.

Clean Water Act (CWA) - The series of federal laws that provide for protection, restoration, or improvement of water quality, including wetlands and riparian areas. The objective of the CWA is to "restore and maintain the chemical, physicall, and biological integrity of the Nation's waters."

DE - U. S. Army Corps of Engineers district engineer

Dredged Material

EPA - U.S. Environmental Protection Agency.

Fill Material - any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation (33 CFR §323.2(m)).

MOA - Memorandum of Agreement

Nationwide general permits

Ordinary High Water (OHW). The line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Ordinary high water

Riparian Area. An ecological community occurring in or adjacent to a drainage way and/or its flood plain and which is further characterized by species and/or life forms different from those of the immediately surrounding non-riparian climax.

Section 401 Certification
Section 404 Permit
USFWS - U.S. Fish and Wildlife Service
Water Quality Certification
Watercourse -
Watercourse. A lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.
Wetlands (Regulatory Definition for Section 404). Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, bogs, and similar areas.
Wetted Channel Cross Section of the 100-year/24 Hour Precipitation (ppt.) Event. *need definition here*
WQCC - Water Quality Control Council

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